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ABSTRACT

A study compared text summaries produced by French high school students and those written by experts. The study's objective was to determine how language users distinguish the essential from the peripheral information, to describe the summarizing process, and to apply the macrostructure theory to the process of summarizing. The summarized texts and the summaries were compared by "sequences," or units constructed around a verb. All student summaries were based on a single original text, while each expert summary was based on a different text. Sequences were categorized as parallel, parallel-selective, selective, selective-generalizing, integrating, or commentary. Common traits of the student summaries were distinguished. Few differences between student and expert summaries were found, the most salient being the more common use of integrating sequences in expert summaries. The summarizing process is described thus: the summarizer selects some sequences that are kept more or less intact, deletes one or several sequences, sometimes generalizes, and sometimes comments. The sequence analysis is proposed as a basis for semantic analysis, as suggested by the notion of macrostructure. (MSE)

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THE FORMAL STRUCTURE OF SCHOOL SUMMARIES

INTRODUCTION

The purpose of this paper is to present some results from a study on the summarizing of texts. The main problems that are raised in the study can be stated as follows:

1) How do language users summarize texts? Or, in the terminology of summarizing, how do they distinguish the essential from the accessory? This has to do with what we intuitively understand as the theme, the topic or the point of a text. It is the language user's version of this, in the form of a summary, that is the object of my study.

2) Which are the most fruitful variables to provide a systematic description of the summarizing activity?

3) To what extent is it possible to use the textlinguist Teun A. van Dijk's theory and method in approaching the process of summarizing (1)? This question is of a more methodological, or perhaps theoretical nature. For my research, van Dijk's notion of macrostructure is of particular interest. He defines the macrostructure of a text as the global semantic representation of that text. What is even more interesting, is that he relates the macrostructure to the summary. He states that a summary can be thought of as the empirical realization of the macrostructure.

METHOD

The material on which the study is based mainly consists of about 30 summaries written by French lycée (junior college) students. For reasons of comparison, I have also included a few

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(1) van Dijk, Teun A. 1980: Macrostructures, LEA, New Jersey.

summaries written by experts, i.e. summaries presented in different hand- or exercice-books (*).

The texts that are summarized usually are of an argumentative or expository type, of about 700-800 words. The students' task is to summarize these texts to about one fourth of the original size.

Since the macrostructure is essentially a semantic notion, the problems stated above require a semantic analysis. However, I also want to give a formal description of the summaries. In my opinion, the study of the formal structure of the summaries- their syntax so to speak - is of interest in itself. In addition, the formal structure will be important as a frame or a basis for the semantic analysis, which will go further into the summarizing activity. It is this formal part of the study, with the relevant variables, that I shall present here.

The formal description of the summaries is based on a comparison between the text that is summarized (hereafter: the original) and the summaries. In order to carry out this comparison, I need linguistic units that are smaller than the entire texts. For methodological reasons, these units should be fairly equivalent. I have opted for the verb as the main factor to ensure this equivalence. I divide the texts (both original and summaries) in smaller units, which I call sequences. These sequences are units that are constructed around a verbal. The length of the sequence is not taken into account here. When the verbal consists of a finite form, the sequence generally corresponds to a syntactic clause (principal or subordinate). In other cases, the sequence normally constitutes an infinitive or participial phrase. I want to stress that this definition of the sequence, which is not a

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* Arambourou, Ch., Textier, F. & Vanoye, F. 1985:
Guide du résumé de texte, Hachette, Paris.
Fournier, J. & Dutertre, R. 1970:
Le résumé de textes par l'exemple, Ed. Roudil, Paris.
Montcoffe, F. & Vanoye, F. 1986:
Sujets 86 Corrigés, Français, Premières, Terminales,
Les éditions bac 87, Nathan, Paris.

very rigourous one, is chosen for practical reasons. The unit of the sequence has an instrumental function in this comparative analysis.

I also want to stress that it is, of course, impossible to delimit these sequences without resorting to semantics. However, the signification of the linguistic elements in the sequences will only have an identifying role in this context.

Given the aim of the study, it is evident that the sequence analysis of the summaries cannot stop with a simple division in sequences, which is sufficient for the original. It is also necessary to characterize the sequences. I have found it fruitful to distinguish between six categories of sequences. These variables will be presented with examples in the following.

The examples are taken from both student summaries (marked a) and expert summaries (marked b). The student summaries are all based on one original text, which deals with the relation between school and culture; the expert ones are each based on different texts. The passages from the original is placed to the left, and the ones from the summaries to the right. The numbers within the examples refer to the division in sequences.

THE VARIABLES

1. Parallel sequence

In a parallel sequence, several elements in the summary correspond more or less directly to several elements in a definite sequence of the original. This sequence constitutes a basic for the summary sequence in the sense that the latter does not contain any element from another sequence in the original. A second criterion that delimits the parallel sequence is related to its place in the summary. In relation to the other sequences, such a sequence is situated on a place corresponding to the place of the basis sequence in the original. So, the term of parallel is justified by both content and place.

The parallelism can be more or less evident, as examples 1

and 2 show (below). In example 1, the parallelism is striking. The relation between the two sequences could be looked upon as one of quasi-identity:

1 (a)	
1) Le monde actuel est complexe, changeant.	1) Notre monde est difficile et instable.
2 (b)	
39) La portée de l'Histoire en matière d'éducation pourrait donc être immense pour la maturation intellectuelle.	12) Elle (l'Histoire) permet aussi et surtout une évolution intellectuelle positive

Although the parallelism is less evident in example 2, there are several elements in the summary sequence that correspond to elements in the original sequence, (l'Histoire -> l'Histoire, pourrait ... être -> permet, éducation + maturation -> évolution, intellectuelle -> intellectuelle).

2. Parallel-selective sequence

The parallel-selective sequence can be considered as a subtype of the parallel one. But in the parallel-selective sequence, one or several elements selected from the original, from other sequences than the basis one, are inserted in the parallel sequence. Typical examples are presented in 3 and 4 (the selected elements are underlined in both original and summary):

3 (a)	
30) pour la (notre société) comprendre, (...) 37) (...) l'Etat (...) 41) (...) les relations entre les pays	10) Ainsi comprendre notre société moderne, l'état, les relations internationales,

Sequence 30 is the basis of sequence 10 in the summary. The inserted elements are selected from sequences 37 and 41 in the original.

In example 4, sequence 29 constitutes the basis of sequence 10 in the summary, and the selected element is taken from sequence 28 in the original:

4 (a)

28) Complexe, notre société? ô combien!
29) Mais dans ce cas pour l'appréhender,

10) Donc, pour connaître la complexité de notre société,

As can be seen by the examples, the distance between the basis sequence and the sequences from which elements are selected can be more or less important (from 30 to 37 and 41 in 3, and from 29 to 28 in 4).

3. Selective sequence

The selective sequence is constructed by elements selected from different sequences in the original, but there is no sequence that can be considered as the basis of the summary sequence:

5 (a)

47) de découvrir, (...)
(...)
50) (...) divers schèmes d'interprétation
51) susceptibles d'être appliqués
(...)

11) de nous montrer de différentes méthodes applicables

In this example, three elements are selected from scattered sequences in the original. They form a new sequence in the summary, with the help of certain modifications (découvrir -> montrer; divers schèmes -> différentes méthodes; susceptibles d'être appliqués -> applicables).

There are also examples where only one element is selected. This element constitutes the starting point of a new sequence in the summary:

6 (b)

51) dès qu'il (l'homme) a fixé une bonne fois les limites de sa personnalité.

18) (de voir quelqu'un) empiéter sur ses frontières personnelles.

4. Selective-generalizing sequence

In the selective-generalizing sequence, certain elements constitute a generalization or a synthesis of elements selected

from different sequences in the original. The feature distinctive of this type is that the synthesizing element is very general or vague, as the expression tout avoir in example 7 (which is a generalization of the underlined elements in the original):

7 (a)

60) L'étude doit être la pause féconde et enrichissante
61) où l'on s'arme pour la vie et pour la réflexion,
62) et où l'on entre en possession de tout un trésor humain,
63) que plus tard on n'aura plus, en général, ni le temps ni l'occasion
64) de découvrir.

18) D'autre part c'est à l'école que nous avons le temps de tout avoir.

5. Integrating sequence

There is also a kind of generalizing sequence which deserves to be classified differently from the selective-generalizing type. The difference lies in the nature of the generalizing elements. While the elements in the selective-generalizing sequence are general in themselves, the elements in the integrating sequence are not. Rather, they are specific, or particular. Let us look at an example:

8 (b)

62) (des littérateurs) qui ne lisent pas,
63) mais dépouillent,
64) et croient faire assez
65) de convertir en fiches tout l'imprimé

9) D'où aussi l'absurdité d'une analyse technique et d'un décorticage scolaire

In this example, the underlined elements in the sequences of the original are integrated in the underlined elements of the summary sequence. These elements (analyse technique and décortiage scolaire) generalize without being general in themselves. One could perhaps call it an ad hoc-generalization.

6. Commentary sequence

The final type of sequence that I have registered in the comparative analysis is the commentary one. This sequence is the only one that is not based on definite elements in the original. In other words, it is a sequence that expresses something that is not expressed in the original. There is nothing in the original to which it could be related. In the example below, the commentary sequence (22) is underlined:

9 (b)

21) Nous sommes alors si pressés, indifférenciés
22) que nous acceptons
23) de nous abandonner à ce grand corps

Sequence 21 (of the selective type) is connected to sequence 23 (of the parallel type) by sequence 22. Without going into semantic or pragmatic details, one may regard it as a commentary, and in that as an addition to the original text.

DISCUSSION

I have found these six variables appropriate in the description of the formal structure in both student and expert summaries. Even if I have no ambition of generalizing, I shall nevertheless put forward some traits as typical of the formal structure of school summaries:

1) Some sequences in the original are chosen as the basis for the major part of the summaries. This can be concluded from the important number of parallel and parellel-selective sequences in proportion to the total number of sequences in the summaries.

2) Certain passages in the original, more or less extensive, are completely deleted in the summaries.

3) In some cases, relatively rare, there are sequences in the summaries which constitute a synthesis of different passages in

the original. These syntheses are manifested by the selective, the selective-generalizing and the integrating sequences.

4) A commentary sequence, which does not correspond to any element in the original, can be inserted. Nevertheless, I want to underline that this is attested only in a very few cases.

There are not many differences between expert and student summaries. The only phenomenon that deserves to be mentioned in this context is that the experts seem to use the integrating sequence to a greater extent than the students. As to the selective-generalizing sequence type there seems to be an opposite tendency.

The process of summarizing, then, could be described in simplified terms as follows:
The summarizer selects some sequences that are kept more or less intact, deletes one or several sequences here and there, generalizes once in a while, and comments in a few cases. (See also Flöttum 1985. (3))

In this context, it is interesting to notice that there is a tendency, in theory as well as in practice, to think of the summary as a synthesis of the entire text. This pictures the summary as something more reunited than the one that I have described, which is rather "spread out".

It remains to be seen how the formal description suits the semantic analysis.

CONCLUSION

By way of conclusion, I shall indicate how the sequence analysis can be a basis for the semantic analysis, and by that be related to van Dijk's notion of macrostructure.

There are three notions that will be of particular interest

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3 Flöttum, Kjersti 1985: "Methodological problems in the analysis of student summaries", in TEXT, vol.5-4, Mouton, Amsterdam.

in the semantic analysis. The first one, **reduction**, is discussed by van Dijk. The second one, **identity**, is also mentionned in his work. As to the last one, **extension**, it cannot be directly related to any of the aspects that van Dijk discusses in the matter of macrostructure. Since the macrostructure is a theoretic concept, this is quite natural. However, the notion of extension is important in the empirical study of summaries. The summarizer can and does occasionally add information which is taken from their own experience and not from the text to summarize.

These three notions can be presented as a graded scale in relation to the different types of sequences (see figure below). On the top of the scale is situated the notion that is unquestionably necessary in the summarizing activity: **reduction**, which is related to the sequences of selection, generalization and integration; in the middle the one which might evoke doubt, at least intuitively: **identity**, which is related to the sequence of parallelism; and at the bottom, the one that seems entirely inappropriate: **extension**, related to the sequence of commentary:

selection generalisation integration	->	reduction
parallelism	->	identity
commentary	->	extension

In this paper, I have briefly presented some formal characteristics of the school summary. The main point was to indicate that the summarizers, to a surprisingly great extent, seem to stick to some definite sequences in the original. Parallelism is by far a more important feature than synthesizing in the process of summarizing.